

What is claimed is:

[Claim 1] 1. A method of forming a light guide plate insert mold, comprising:

providing a substrate;

performing a surface treating process upon the substrate;

forming a plurality of photo resist patterns on the substrate;

performing a flow process so as to form a microlens surface on each photo resist pattern; and

forming a metal layer on the photo resist patterns so as to form a plurality of patterns complementary to the photo resist patterns on a bottom surface of the metal layer.

[Claim 2] 2. The method of claim 1, wherein before the surface treating process is performed the method further comprises:

performing a rinsing process; and

performing a dehydrating process.

[Claim 3] 3. The method of claim 1, wherein the surface treating process is a thin film deposition process for forming a metal thin film on the substrate.

[Claim 4] 4. The method of claim 3, wherein the thin film deposition process is selected from technologies consisting of physical vapor deposition, chemical vapor deposition, electroplating, and electroless plating.

[Claim 5] 5. The method of claim 1, wherein the surface treating process is a roughening process for altering the roughness of the substrate.

[Claim 6] 6. The method of claim 5, wherein the roughening process is selected from technologies consisting of blasting treatment and etching treatment.

[Claim 7] 7. The method of claim 1, wherein the surface treating process is a surface activating process for altering the surface energy of the substrate.

[Claim 8] 8. The method of claim 7, wherein the surface activating process is selected from technologies consisting of plasma bombing and surfactant treatment.

[Claim 9] 9. The method of claim 1, wherein the surface treating process is a coating process for forming a photo resist film on the substrate.

[Claim 10] 10. The method of claim 1, wherein the step of forming the photo resist patterns further comprises:

coating a photo resist layer onto the substrate; and
performing an exposing and developing process to remove a portion of the photo resist layer.

[Claim 11] 11. The method of claim 1, wherein the surface treating process acts upon the entire substrate.

[Claim 12] 12. The method of claim 1, wherein the surface treating process partially acts upon the substrate.

[Claim 13] 13. The method of claim 1, wherein the metal layer is formed by electroplating.

[Claim 14] 14. The method of claim 1, wherein after the metal layer is formed the method further comprises a step of departing the metal layer from

the substrate and the photo resist patterns so as to form the light guide plate insert mold.